

## AMENDMENTS

### Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-26 (canceled)

Claims 27-34 (withdrawn)

35. (new) A method comprising:

- a) providing an array composition comprising a population of microspheres comprising at least a first and a second subpopulation, wherein the microspheres of each subpopulation comprise:
  - i) a bioactive agent;
  - ii) at least a first and a second decoding attribute wherein at least one of said decoding attributes is an identifier binding ligand (IBL), wherein said IBL is different from said bioactive agent; and

b) detecting each of said first and second decoding attributes to identify each of said bioactive agents.

36. (new) The method according to claim 35, wherein said detecting comprises detecting binding of a decoder binding ligand (DBL) to said IBL.

37. (new) A method comprising:

- a) providing an array composition comprising a population of microspheres comprising at least a first and a second subpopulation, wherein the microspheres of each subpopulation comprise:
  - i) a bioactive agent;
  - ii) at least a first and a second decoding attribute wherein at least one of said decoding attributes is an identifier binding ligand (IBL), wherein said IBL is different from said bioactive agent; and

b) detecting each of said first and second decoding attributes to identify each of said bioactive agents, wherein said detecting comprises detecting binding of a decoder binding ligand (DBL) to said IBL; and

c) detecting binding of a first target analyte to said bioactive agent on said first subpopulation of microspheres.

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38. (new) The method according to claims 35 or 37 wherein said IBL comprises a nucleic acid.

39. (new) The method according to claims 35 or 37 wherein said second decoding attribute is selected from the group consisting of a second IBL, microsphere size or microsphere surface texture.

40. (new) The method according to claims 35 or 37 wherein said first and second attributes are IBLs and are attached to said first subpopulation of microspheres at a first ratio and are attached to said second population of microspheres at a second ratio.

41. (new) The method according to claims 35 or 37 wherein said subpopulations are distributed on a substrate.

42. (new) The method according to claims 35 or 37 wherein said array is a liquid array.

43. (new) The method according to claims 35 or 37, wherein said detecting is by fluorescence-activated cell sorter (FACS).

44. (new) The method according to claims 35 or 37, wherein said bioactive agent and said IBL are different molecules.